What is claimed is:

1. An apparatus for programming a cardiac pacemaker, the apparatus comprising:

a look-up table for determining a programmable pacing parameter, the look-up table including:

a first input list including a plurality of value ranges of a first cardiac parameter;

a second input list including one or more value ranges of a second cardiac parameter; and

one or more output lists each corresponding to one value range of the one or more value ranges of the second cardiac parameter and including a plurality of atrio-ventricular delay (AVD) values each corresponding to one value range of the plurality of value ranges of the first cardiac parameter.

2. The apparatus of claim 1, wherein the first cardiac parameter comprises a measured intrinsic atrio-ventricular interval (AV).

3. The apparatus of claim 2, wherein the second cardiac parameter comprises a measured QRS duration.

4. The apparatus of claim 3, wherein the second inputs comprises a first value range of about 120 to 150 milliseconds and a second value range of greater than about 150 milliseconds.

5. The apparatus of claim 1, wherein the AVD values are within a range of about 50 to 250 milliseconds.

6. The apparatus of claim 1, wherein the AVD values are listed in predetermined

increments.

7. The apparatus of claim 6, wherein the AVD values are listed in increments of about 10 milliseconds.

8. The apparatus of claim 1, wherein the look-up table is presented in a visually readable form comprising:

a first column including the plurality of value ranges of the first cardiac parameter;

a first row including the one or more value ranges of the second cardiac parameter; and

one or more columns each including a list of the AVD values each corresponding to one value range of the plurality of value ranges of the first cardiac parameter, the list corresponding to one value range of the one or more value ranges of the second cardiac parameter.

9. The apparatus of claim 8, wherein the look-up table is printed on a card.

10. The apparatus of claim 8, wherein the look-up table is printed on paper.

11. The apparatus of claim 8, wherein the look-up table is displayed on a screen.

12. The apparatus of claim 1, wherein the look-up table is in a microprocessor-readable form, and furthering comprising a microprocessor-based device to electronically store the look-up table.

13. The apparatus of claim 12, wherein the microprocessor-based device comprises:

a user input device to receive a first value of the first cardiac parameter and a

second value of the second cardiac parameter; and

an output device to produce the an AVD value corresponding to the first value and the second value, the AVD value generated using the electronic look-up table.

14. A look-up table for determining a cardiac pacing parameter, the look-up table comprising:

an intrinsic atrio-ventricular interval (AV) list including a plurality of AV value ranges;

a QRS duration list including first and second QRS duration ranges;

a first atrio-ventricular delay (AVD) list including a first plurality of AVD values each corresponding to one AV value range of the plurality of AV value ranges, the first AVD list corresponding to the first QRS duration range; and

a second AVD list including a second plurality of AVD values each corresponding to one AV value range of the plurality of AV value ranges, the second AVD list corresponding to the second QRS duration range,

wherein each AVD value in the first and second AVD lists is determined to provide for an approximately maximum positive rate of left ventricular pressure change during systole, LV+dp/dt, by delivering ventricular pacing pulses with that AVD value.

15. The look-up table of claim 14, wherein the first plurality of AVD values and the second plurality of AVD values each comprise integers in predetermined increments.

16. The look-up table of claim 15, wherein the first plurality of AVD values and the second plurality of AVD values each comprise integers in increments of about 10 milliseconds.

17. The look-up table of claim 14, wherein the first QRS duration range includes QRS durations within about 120 to 150 milliseconds.

18. The look-up table of claim 17, wherein the first plurality of AVD values are within a range of about 50 to 250 milliseconds.

19. The look-up table of claim 14, wherein the second QRS duration range includes QRS durations above about 150 milliseconds.

20. The look-up table of claim 19, wherein the second plurality of AVD values are within a range of about 50 to 190 milliseconds.

21. A method for determining a pacing parameter, the method comprising:

generating a plurality of intrinsic atrioventricular interval (AV) value ranges;

determining a first atrioventricular delay (AVD) value for each AV value range of the plurality of AV value ranges based on a first mathematical relationship between AVD and AV, the first mathematical relationship providing for an approximately maximum positive rate of left ventricular pressure change during systole, LV+dp/dt, by delivering ventricular pacing pulses with the AVD; and

producing a look-up table allowing mapping the each AV value range of the plurality of AV value ranges to the first AVD value calculated using the first mathematical relationship.

22. The method of claim 21, further comprising:

measuring an intrinsic AV from an electrogram; and

determining an AVD value corresponding to the measured intrinsic AV duration using the look-up table.

23. The method of claim 21, wherein determining the first AVD value comprises determining an average AV value to represent the each AV value range of the plurality

of AV value ranges.

24. The method of claim 23, wherein determining the first AVD value comprises calculating the first AVD value using an equation: AVD = N1·AV – N2, where N1 and N2 are predetermined coefficients, and AV is the average AV value.

25. The method of claim 24, wherein determining the first AVD value further comprises setting the AVD value to a predetermined minimum value if the calculated AVD value is below the predetermined minimum value.

26. The method of claim 25, wherein determining the first AVD value further comprises setting the AVD value to a predetermined maximum value if the calculated AVD value is above the predetermined maximum value.

27. The method of claim 26, further comprising determining a second AVD value for the each AV value range of the plurality of AV value ranges based on a second mathematical relationship between the AVD and AV, the second mathematical relationship providing for an approximately maximum positive rate of left ventricular pressure change during systole, LV+dp/dt, by delivering ventricular pacing pulses with the AVD, wherein producing the look-up table comprises producing a look-up table allowing mapping the each AV value range of the plurality of AV value ranges to one of the first AVD value calculated using the first mathematical relationship and the second AVD value calculated using the second mathematical relationship, the first mathematical relationship derived for a first QRS duration range, the second mathematical relationship derived for a second QRS duration range.

28. The method of claim 27, further comprising:

measuring an intrinsic AV from an electrogram;

measuring a QRS duration from an electrocardiographic signal; and

determining an AVD value corresponding to the measured intrinsic AV and the measured QRS duration using the look-up table.

29. The method of claim 27, further comprising truncating or rounding the calculated first AVD values into a list of first AVD values in predetermined increments, and truncating or rounding the calculated second AVD values into a list of second AVD values in the predetermined increments.

30. The method of claim 29, wherein truncating or rounding the calculated first AVD values into the list of first AVD values comprises truncating or rounding the calculated first AVD values into a list of first AVD values in increments of about 10 milliseconds, and truncating or rounding the calculated second AVD values into the list of second AVD values comprises truncating or rounding the calculated second AVD values into a list of second AVD values in increments of about 10 seconds.

31. The method of claim 30, wherein truncating or rounding or rounding the calculated first AVD values comprises truncating or rounding or rounding the calculated first AVD values into a list of first AVD values each being a multiple of 10 milliseconds, and truncating or rounding or rounding the calculated second AVD values comprises truncating or rounding or rounding the calculated second AVD values into a list of second AVD values each being a multiple of 10 milliseconds.

32. The method of claim 21, further comprising printing the look-up table on a card.

33. The method of claim 21, further comprising printing the look-up table on paper.

34. The method of claim 21, further comprising storing the look-up table on a microprocessor-readable medium.

35. The method of claim 34, further comprising presenting the look-up table on a screen.

36. The method of claim 34, further comprising:

receiving a measured AV value; and

presenting an AVD value mapped to the measured AV value using the look-up table.